IN THE CLAIMS:

1-30. (Canceled)

31.   (previously presented) A cable headend for a television program delivery system, wherein set top terminals communicate with the cable headend, the cable headend comprising:

a signal processing means for processing a plurality of video signals comprising:

means for receiving a plurality of video signals;

means for selecting video signals from the plurality of video signals; and

combiner means for combining the selected video signals for distribution to set top terminals, wherein the combiner means comprises:

a plurality of first-in-first-out storage means, each first-in-fist-out storage means for storing packets from a single digital program and outputting the packets to an associated output means;

a plurality of the associated output means connected to a serializing means;

first-in-first-out control means for monitoring the number of video packets input to and output from each of the plurality of first-in-first-out storages, sending a control signal to a computer processing means when an individual first-in-first-out storage means is reaching capacity, and opening and closing the plurality of output means to maintain a constant output of the serializing means;

a network controller for controlling the operation of the signal processor and the set top terminals comprising:

means for obtaining communications from the set top terminals;

the computer processing means, connected to the obtaining means, for generating instructions to the signal processor using the communications from the set top terminals; and

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means for transferring instructions to the signal processing means to be used for selecting video signals; and

means for distributing the combined video signals to the set top terminals.

32-46. (Cancelled)

47.   (currently amended) A cable headend system, comprising:

a control CPU, wherein the control CPU manages and monitors that desired digital programs are selected from at least one multiplexed signal, and sends instructions;

a demultiplexer, wherein the demultiplexer receives the at least one multiplexed signal, performs selection of the desired programs according to the instructions sent from the control CPU, and outputs the selected programs;

a combiner, wherein the combiner accepts the outputted selected programs from the demultiplexer and combines the selected programs into a combined signal for transmission according to instructions sent from the control CPU, wherein the combiner comprises:

a plurality of first-in-first-out storages, each first-in-fist-out storage storing packets from a single digital program and outputting the packets to an associated output gate;

a plurality of the associated output gates connected to a serializer;

first-in-first-out control logic for monitoring the number of video packets input to and output from each of the plurality of first-in-first-out storages, sending a control signal to ~~the~~ a network controller CPU when an individual first-in-first-out storage is reaching capacity, and opening and closing the plurality of output gates to maintain a constant output of the serializer;

a network controller for controlling the operations of the control CPU and the set top terminals comprising:

a receiver, for obtaining communications from set top terminals; and

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the network controller CPU, connected to the receiver, for generating instructions to the control CPU using the communications from the set top terminals;

means for transferring instructions to the control CPU to be used for the selected programs.

48.   (previously presented) The system of claim 47, wherein the demultiplexer separates the multiplexed signals into individual digital programs.

49.   (previously presented) The system of claim 47 further comprising a local insertion device, wherein the local insertion device receives at least one local program and outputs the at least one local program to the combiner, and wherein the combiner combines the output local program with the selected programs.

50-66. (cancelled)

67.   (previously presented) A method, comprising the steps of:

processing a plurality of multiplexed signals at a signal processor comprising:

receiving information from set top terminals at a network controller having a network controller CPU and at least one multiplexed signal containing a plurality of digital programs, wherein the information includes data on identities of the desired digital programs;

generating instructions via the network controller CPU regarding the desired digital programs, wherein the instructions are generated using the received information;

selecting the desired digital programs using the generated instructions, wherein the selected digital programs are a subset of the plurality of digital programs contained in the at least one multiplexed signal;

combining the selected digital programs into a combined signal for transmission to set top terminals, wherein the combining comprises:

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for each selected digital program, storing packets from the selected digital program in one of a plurality of first-in-first-out storages and outputting the packets from the first-in-first-out storage to an associated output gate connected to a serializer;

using control logic for monitoring the number of video packets input to and output from each of the plurality of first-in-first-out storages, sending a control signal to the network controller CPU when an individual first-in-first-out storage is reaching capacity, and opening and closing the plurality of output gates to maintain a constant output of the serializer;

controlling the operation of the signal processor and the set top terminals via the network controller comprising:

obtaining communications from the set top terminals;

generating instructions via the network controller CPU to the signal processor using the information from the set top terminals; and

transferring the generated instructions to the signal processor to be used for selecting digital programs; and

distributing the combined signal to the set top terminals.

68.   (previously presented) The method of claim 67, further comprising the step of demultiplexing the multiplexed signals into individual digital programs.

69.   (previously presented) The method of claim 67 further comprising the step of:

inserting at least one local program, wherein the local program is combined with the selected digital programs in the combining step.

70.   (previously presented) A method, comprising the steps of:

receiving information from set top terminals at a network controller having a network controller CPU and at least one multiplexed signal containing a plurality of digital programs at a signal processor, wherein the information includes data on identities of the digital programs;

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generating instructions via the network controller CPU regarding the digital programs, wherein the instructions are based on the received information;

transferring the generated instructions from the network controller to the signal processor;

removing unwanted digital programs using the generated instructions, wherein the unwanted digital programs are a subset of the plurality of digital programs contained in the at least one multiplexed signal and whereby removing the unwanted digital programs leaves the remaining plurality of digital programs; and

combining the remaining plurality of digital programs into a combined signal for transmission, wherein the combining comprises:

for each remaining digital program, storing packets from the remaining digital program in one of a plurality of first-in-first-out storages and outputting the packets from the first-in-first-out storage to an associated output gate connected to a serializer;

using control logic for monitoring the number of video packets input to and output from each of the plurality of first-in-first-out storages, sending a control signal to the network controller CPU when an individual first-in-first-out storage is reaching capacity, and opening and closing the plurality of output gates to maintain a constant output of the serializer.

71.   (previously presented) The method of claim 70, further comprising the step of demultiplexing the at least one multiplexed signal into individual digital programs.

72.   (previously presented) The method of claim 70 wherein the information received includes identities of the unwanted digital programs.

73.   (previously presented) The method of claim 70 wherein the generated instructions comprise identities of the unwanted digital programs and whereby

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the removing step uses the generated instructions to remove the unwanted digital programs.

74.   (previously presented) A method, comprising the steps of:

receiving information from set top terminals at a network controller having a network controller CPU and a multiplexed signal containing a plurality of digital programs at a signal processor, wherein the information includes data on identities of the desired digital programs;

generating instructions via the network controller CPU regarding the desired digital programs, wherein the instructions are generated using the received information;

transferring the generated instructions from the network controller to the signal processor;

selecting the desired digital programs using the generated instructions, wherein the selected digital programs or channels are a subset of the plurality of digital programs contained in the multiplexed signal; and

combining the selected digital programs into a combined signal for transmission, wherein the combining comprises:

for each selected digital program, storing packets from the selected digital program in one of a plurality of first-in-first-out storages and outputting the packets from the first-in-first-out storage to an associated output gate connected to a serializer;

using control logic for monitoring the number of video packets input to and output from each of the plurality of first-in-first-out storages, sending a control signal to the network controller CPU when an individual first-in-first-out storage is reaching capacity, and opening and closing the plurality of output gates to maintain a constant output of the serializer.

75.   (previously presented) The method of claim 74 wherein the combining step comprises a serializer combining the selected digital programs into a combined signal for transmission.

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76.   (previously presented) The method of claim 74 wherein the selecting step comprises digital logic selecting the desired digital programs using the generated instructions.

77.   (previously presented) A method, comprising the steps of:

receiving information from set top terminals at a network controller having a network controller CPU and a plurality of multiplexed signals at a signal processor, each multiplexed signal containing a plurality of digital programs, wherein the information includes data on identities of the desired digital programs;

generating instructions via the network controller CPU regarding the desired digital programs, wherein the instructions are generated using the received information;

transferring the generated instructions from the network controller to the signal processor;

selecting the desired digital programs using the generated instructions, wherein the selected digital programs or channels are a subset of the plurality of digital programs contained in the multiplexed signals; and

combining the selected digital programs into a combined signal for transmission, wherein the combining comprises:

for each selected digital program, storing packets from the selected digital program in one of a plurality of first-in-first-out storages and outputting the packets from the first-in-first-out storage to an associated output gate connected to a serializer;

using control logic for monitoring the number of video packets input to and output from each of the plurality of first-in-first-out storages, sending a control signal to the network controller CPU when an individual first-in-first-out storage is reaching capacity, and opening and closing the plurality of output gates to maintain a constant output of the serializer.

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78.   (previously presented) The method of claim 77 wherein the combining step comprises a serializer combining the selected digital programs into a combined signal for transmission.

79.   (previously presented) The method of claim 77 wherein the selecting step comprises digital logic selecting the desired digital programs using the generated instructions.

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